

U.S. Patent Application Serial No. 09/814,099
Amendment filed August 23, 2004
Reply to OA dated May 13, 2004

REMARKS

Claims 1 and 2 have been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicant regards as his invention. The applicant respectfully submits that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated May 13, 2004.

Claims 1 - 3 and 11 - 13 are currently pending in this patent application, claims 4 - 10 having been withdrawn in a Response to a Restriction Requirement filed April 10, 2002.

The applicant and his undersigned representative thank the Examiner for now indicating that claims 2, 3 and 11 - 13 have been allowed.^{1/}

However, claim 1 stands rejected under 35 U.S.C. §103(a) based on a new reference (namely, **Hanamoto**; U.S. Patent No. 5,356,259) also assigned to Komatsu Ltd., the assignee in this case.

In response, first, in the applicant's Response under 37 CFR §1.116 filed January 16, 2004, the significant distinguishable structural arrangements of the applicant's claimed working unit

^{1/} See, item 3, page 3 of the outstanding Action.

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control apparatus over the teachings of the prior art was highlighted by stressing the significance of the claimed load judging portion and the claimed excavating state detecting means.^{2/} It is for this reason that the Examiner withdrew the **Kinugawa** reference, and this time relies on the new **Hanamoto** reference.

Second, consistent with the applicant's above comments, the Examiner provides his reasons for finding allowable claimed subject matters (in claims 2, 3 and 11 - 13) by stating that:

[s]pecifically, prior art of record does not teach the excavating machine that starts an automatic excavation control when the load judging portion judges that the vehicle is under excavation.^{3/}

Third, the Examiner surprisingly relies on **Hanamoto** in rejecting claim 1 despite the Examiner's clear acknowledgment in lines 2 and 3, page 3 of the outstanding Action that: “**Hanamoto** does not explicitly teach an excavating state detecting means.” (Emphasis added.) Despite such clear acknowledgment by the Examiner of **Hanamoto**'s deficiency in failing to teach the applicant's claimed excavating state detecting means, the Examiner has taken the position that:

since **Hanamoto** teaches the capability to recognize the user operation on the pedal 10 (fig. 1) for automatic excavating mode (col. 16, lines 39-42), and since including a means for detecting the level of

^{2/} See, the Remarks portion (pages 17 - 22 of our Response filed January 16, 2004).

^{3/} See, lines 3 - 5, item 4, page 3 of the outstanding Action.

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operation on the pedal would have been known.^{4/}

In other words, the Examiner appears to have taken the position that the recognition of a pedal's 10 operation in **Hanamoto** reflects the applicant's claimed excavating state detecting means.

The applicants respectfully submits, however, that **Hanamoto**'s pedal 10 is operated by a user:

for instructing an automatic excavation mode in addition to two operation levers 11 and 12 for providing commands for rotation and pivoting motion for the boom, arm and bucket.^{5/}

More particularly, **Hanamoto** discloses an operation pedal 10 for instructing an automatic excavation mood in addition to two operation levers 11 and 12 for providing commands for rotation and pivoting motion for the boom, arm and bucket.

The moment when the operation pedal 10 has been trodden is the moment for starting excavation and the position of the front edge of the bucket at that moment is made the position to start excavation.

^{4/} See, lines 3 - 6, page 3 of the outstanding Action.

^{5/} See, lines 20 - 24, column 9 in **Hanamoto**.

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If the condition for determining the moment to start excavation is set to the moment when the pump pressure after the operation pedal 10 has been trodden reaches the set value J or more, it becomes possible to more accurately determine the point to start excavation (see, column 9, lines 20-28, and column 16, lines 38 - 61 in **Hanamoto**).

In any event, it is impossible to determine the moment to start excavation until the operation pedal 10 is trodden by an operator.

To the contrary, the claimed excavating state detecting means, as set forth in independent claim 1, is operable and detectable for an excavating state of a vehicle while the vehicle is in operation (see, page 23, lines 6 - 12 of the applicant's specification).

Further, the Examiner's reliance on **Hanamoto** does not address the fact that in the applicant's claimed working unit control apparatus, the claimed load judging portion operates "on the basis of a detecting amount input from the excavating state detecting means" (as recited in claim 1) from which the Examiner found claims 2, 3 and 11 - 13 allowable (see, again, lines 3 - 5, item 4, page 3 of the outstanding Action).

In order to further highlight the above-discussed distinguishable structural arrangements of the claimed invention, the applicant has further highlighted such structural relationship of the

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applicant's claimed load judging portion and excavating state detecting means (i.e., more particularly reciting in claim 1 that the applicant's claimed load judging portion is: "operably coupled to said excavating state detecting means").

In view of the above, the applicant respectfully submits that a person of ordinary skill in the art would not have found the applicant's claimed invention obvious under 35 U.S.C. §103(a) based on the new reference, **Hanamoto**. Accordingly, the withdrawal of the outstanding obviousness rejection under 35 U.S.C. §103(a) based on the new reference (namely, **Hanamoto**; U.S. Patent No. 5,356,259) is in order, and is therefore respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.

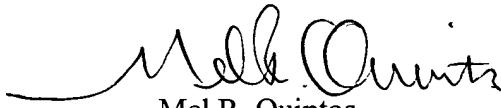
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicant's undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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